

What Is Claimed Is:

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An apparatus for integrating fixed wireless broadband access and a wireless local area radio network, comprising:

5 a broadband radio signal transmitter/receiver that is capable of transmitting and receiving at least one broadband radio signal; and

an integrator, the integrator comprising:

10 an RF processing component that processes the at least one broadband radio signal;

a modulator/demodulator component for modulating/demodulating the at least one broadband radio signal; and

a wireless local area radio for transmission and reception of the at least one broadband radio signal.

15 2. The apparatus according to claim 1, further comprising:

20 a local area antenna by which the wireless local area radio transmits and receives the at least one broadband radio signal.

3. The apparatus according to claim 1, further comprising:

a power source for providing power to the integrator.

25 4. The apparatus according to claim 1, further comprising:

30 an electronic device capable of transmitting and receiving the at least one broadband radio signal to and from the integrator and an outside data communication source.

5. The apparatus according to claim 4, wherein such transmission and reception of the at least one broadband radio

signal by the electronic device to and from the integrator and the outside data communication source is based upon at least one of a signal strength measurement and a channel interference measurement for each of the integrator and outside data communication source.

6. The apparatus according to claim 5, wherein the signal strength measurement and the channel interference measurement for each of the integrator and the outside data communication source are compared, and from this comparison a determination of whether a transmission/reception crossover should be effected is carried out.

7. The apparatus according to claim 1, wherein the at least one broadband radio signal may be either analog or digital in nature.

8. An apparatus for integrating fixed wireless broadband access and a wireless local area radio network, comprising:

a broadband signal conduit over which communication data is transmitted and received; and

an integrator, the integrator comprising:

an RF processing component that processes the communication data;

a modulator/demodulator component for modulating/demodulating the communication data; and

a wireless local area radio for transmission and reception of the communication data.

9. The apparatus according to claim 8, further comprising:

a local area antenna by which the wireless local area radio transmits and receives the communication data.

10. The apparatus according to claim 8, further comprising:

a power source for providing power to the integrator.

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11. The apparatus according to claim 8, further comprising:

10 an electronic device capable of transmitting and receiving the communication data to and from the integrator and an outside data communication source.

12. The apparatus according to claim 11, wherein such transmission and reception of the communication data by the electronic device to and from the integrator and the outside data communication source is based upon at least one of a signal strength measurement and a channel interference measurement for each of the integrator and outside data communication source.

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20 13. The apparatus according to claim 12, wherein the signal strength measurement and the channel interference measurement for each of the integrator and the outside data communication source are compared, and from this comparison a determination of whether a transmission/reception crossover
25 should be effected is carried out.

14. The apparatus according to claim 8, wherein the at least one communication data may be either analog or digital in nature.

30 15. A method of integrating fixed wireless broadband access and a wireless local area radio network, comprising the steps of:

acting as a conduit for at least one broadband radio frequency signal;

processing the at least one broadband radio frequency signal;

modulating/demodulating the at least one broadband radio frequency signal; and

transmitting the at least one broadband radio frequency signal between a wireless local area radio and an electronic device.

16. The method according to claim 15, wherein the step of acting as a conduit for the at least one broadband radio frequency signal is performed by at least one of an antenna, a satellite dish and a cable.

17. The method according to claim 15, wherein transmission of the at least one broadband radio frequency signal between the wireless local area radio and the electronic device is through a local area antenna.

18. The method according to claim 15, wherein the steps of processing, modulating/demodulating and transmitting the at least one broadband radio frequency signal are performed by an integrator.

19. The method according to claim 18, wherein the integrator may receive a signal from the electronic device for transmission by at least one of an antenna, a satellite dish and a cable.

20. A method of integrating fixed wireless broadband access and a wireless local area radio network, comprising the steps of:

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determining a signal strength and a channel interference of a first signal channel source of at least one broadband radio frequency signal;

5 identifying a second signal channel source for the at least one broadband radio frequency signal;

determining a signal strength and a channel interference of the second signal channel source;

determining whether the second signal channel source is better than the first signal channel source; and

10 effecting crossover if it is determined that the second signal channel source is better.

21. The method according to claim 20, further comprising the step of:

15 interrogating an electronic device to pass information relating to the at least one broadband radio frequency signal.

22. The method according to claim 20, wherein the determination of whether the second signal channel source is better than the first signal channel source is accomplished by a comparison of the signal strength and channel interference of each of the first and the second signal channel sources.

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